Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains unless and office of the control of

| Substitu | ite for form 144 | 19/PT | 0 | Complete if known | | |
|-----------------------------------|------------------|-------|------------|------------------------|------------------------------|--|
| | | | | Application Number | 10/589,052; Conf. No. 5470 | |
| INFO | RMATION | DISC | CLOSURE | Filing Date | September 8, 2008 | |
| STA | TEMENT B | Y AP | PLICANT | First Named Inventor | Kambiz Shekdar | |
| OTATEMENT BY ALL EIGHT | | | | Art Unit | 1639 | |
| (use as many sheets as necessary) | | | necessary) | Examiner Name | Amber D. Steele | |
| Sheet | 1 | of | 3 | Attorney Docket Number | 002298-0003-101 (CHROMO/003) | |

| | | | U.S. PATENT | DOCUMENTS | | | |
|-----------------------|--|--|--------------------------------|--|---|----------------|--|
| Examiner | Cite | Document Number | Publication Date | Name of Patentee or | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | | |
| initials* | No.1 | Number - Kind Code ² (If known) | MM-DD-YYYY | Applicant of Cited Documents | | | |
| | | FOR | EIGN PATEN | T DOCUMENTS | | | |
| Examiner initials* | Cite No.1 | Foreign Patent Document Country Code ¹ — Number ² - Kind Code ³ | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Documents | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ | |
| | | NON PA | TENT LITER | ATURE DOCUMENTS | ß | | |
| Examiner Initials* | Cite No.1 | | osium, catalog, etc.), d | title of the article (when appropriate, ate, page(s), volume-issue number(there published | | T ⁸ | |
| | | BRATU et al., "Visualizing the distribution and transport of mRNAs in living cells," PNAS, 100(23):13308-13313 (2003) | | | | | |
| | | BRATU, "Molecular beacons: Fluorescent probes for detection of endogenous mRNAs in living cells," Methods In Molecular Biology, 319:1-14 (2006) | | | | | |
| | | BUTLER, "Cell line development and culture strategies: future prospects to improve yields," Cell Culture and Upstream Processing, Department of Microbiology, University of Manitoba, Manitoba, Canada, Chapter 1, pages 3-15 (2007) | | | | | |
| | | CHEN et al., "Efficient flow cytometric analysi (2008) | | | | | |
| | DIRKS et al., "Methods for visualizing RNA processing and transport pathways in living cells," <i>Histochemistry And Cell Biology</i> , 115(1):3-11 (2001) | | | | | | |
| | GANG, "Sensitive mRNA detection in single living cells," Abstracts of Papers American Chemical Society, 228(2):U242-U243 (2004) | | | | | | |
| | GURTU et al., "IRES bicistronic expression vectors for efficient creation of stable mammalian cell lines," <i>Biochemical and Biophysical Research</i> Communication, 2201(1):295–298 (1996) | | | | | | |

| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |

*EXAMINE: Initial if reference considered, whether on not clation is no conformance with IMEP 000. Draw five through clation if not in conformance and not considered, include copy of this form with next communication to applicant. If a played in the conformance is a played in the conformance is a played in the conformance in the conformance is a played in the conformance in the conformance is a played in the conformance in the conformance is a played in the conformance in the conformance is a played in the conformance in the conformance is a played in the conformance in the conformance is a played in the conformance in the conformance is a played in the conformance in the conformance is a played in the conformance in the conformance in the conformance is a played in the conformance in the conformance in the conformance is a played in the conformance in the

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a beaufit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 USC. 1.22 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of fine yea require to complete this form and-or aggestions of readouting this burden, should be sent to the Chert in the complete the first or complete the first many and or aggestions and or aggestions and or aggestions of the complete the first or and or aggestions of the complete the first or and or aggestions of the complete the first or and or aggestion of the complete the first or and or aggestions of the complete the first or and or aggestion of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or aggregation of the complete the first or and or aggregation or aggregation or aggregation of the complete the first or aggregation of the complete the first or aggregation of the complete the c

| Substitu | te for form 144 | 49/PT | 0 | Complete if known | | |
|-----------------------------------|-----------------|-------|---------|------------------------|------------------------------|--|
| | | | | Application Number | 10/589,052; Conf. No. 5470 | |
| INFO | DRMATION | DISC | CLOSURE | Filing Date | September 8, 2008 | |
| STA | TEMENT B | Y AF | PLICANT | First Named Inventor | Kambiz Shekdar | |
| OTATEMENT BY ALL EIGHT | | | | Art Unit | 1639 | |
| (use as many sheets as necessary) | | | | Examiner Name | Amber D. Steele | |
| Sheet | 2 | of | 3 | Attorney Docket Number | 002298-0003-101 (CHROMO/003) | |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|---|---|--|--|--|--|--|
| C | HORLICK et al., "Rapid Generation of Stable Cell Lines Expressing Corticotropin-Releasing Hormone Receptor for Drug Discovery," <i>Protein Expression and Purification</i> , 9(3):301-308 (1997) | | | | | | |
| ol | IAKSIMENKO et al., "Real-time detection and efficacy of antisense ligonucleotides delivered by PAMAM dendrimers in living cells," <i>Journal of trug Delivery Science and Technology</i> , 15(1):75-79 (2005) | _ | | | | | |
| in | #EDLEY et al., "Simultaneous monitoring of the expression of multiple genes uside of single breast carcinoma cells," *Analytical Chemistry, 77(15):4713-718 (2005) | | | | | | |
| | OLENAAR et al., "Linear 2' O-Methyl RNA probes for the visualization of NA in living cells," Nucleic Acids Research, 29(17):e89 (2001) | | | | | | |
| nı | ITIN et al., "NLS peptide conjugated molecular beacons for visualizing uclear RNA in living cells," <i>Bioconjugate Chemistry</i> , 19(100):2205-2211 (2008) | | | | | | |
| | ITTIN et al., "Peptide-linked molecular beacons for efficient delivery and rapid aRNA detection in living cells," <i>Nucleic Acids Research</i> , 32(6):e58 (2004) | | | | | | |
| m | ITTN et al., "Translation inhibition reveals interaction of 2'-deoxy and 2'-O- nethyl molecular beacons with mRNA targets in living cells," <i>Nucleic Acids</i> esearch, 37(15):4977-4986 (2009) | | | | | | |
| B | HEE et al., "Target accessibility and signal specificity in live-cell detection of MP-4 mRNA using molecular beacons," <i>Nucleic Acids Research</i> , 36(5):e30 (2008) | | | | | | |
| tra | ODRIGUEZ et al., "Imaging mRNA movement from transcription sites to anslation sites," Seminars In Cell and Developmental Biology, 18(2):202-208 (2007) | | | | | | |
| m | ANTANGELO et al., "Direct visualization of mRNA colocalization with nitochondria in living cells using molecular beacons," <i>Journal Of Biomedical prics</i> , 10(4):44025 (2005) | | | | | | |

| Examiner | Date |
|-----------|------------|
| Signature | Considered |

"EXAMINER: Initial if inference considered, whether or not clation is no confirmance with MPEP 600. Draw line through clatifier in its confirmance with or considered, whether or not clation is not considered. In the confirmance in the confirmance with or considered in confirmance and not considered in the confirmance in the confirmanc

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a beaufit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 USC. 1.22 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of fine yea require to complete this form and-or aggestions of readouting this burden, should be sent to the Chert in the complete the first or complete the first many and or aggestions and or aggestions and or aggestions of the complete the first or and or aggestions of the complete the first or and or aggestion of the complete the first or and or aggestion of the complete the first or and or aggestion of the complete the first or and or aggestion of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or aggregation of the complete the first or and or aggregation of the complete the first or aggregation of the complete the first or aggregation of the complete the first or aggregation of the complete the c

| Substitu | ite for form 144 | 49/PT | 0 | Complete if known | | |
|-----------------------------------|------------------|-------|---------|------------------------|------------------------------|--|
| | | | | Application Number | 10/589,052; Conf. No. 5470 | |
| INFO | RMATION | DISC | CLOSURE | Filing Date | September 8, 2008 | |
| STA | TEMENT B | Y AF | PLICANT | First Named Inventor | Kambiz Shekdar | |
| OTATEMENT BY ALL EIGHT | | | | Art Unit | 1639 | |
| (use as many sheets as necessary) | | | | Examiner Name | Amber D. Steele | |
| Sheet | 3 | of | 3 | Attorney Docket Number | 002298-0003-101 (CHROMO/003) | |

| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|--|--|--|--|--|
| | SANTANGELO et al., "Dual FRET molecular beacons for mRNA detection in living cells," Nucleic Acids Research, 32(6):e57 (2004) | | | | |
| | SANTANGELO et al., "Live-cell characterization and analysis of a clinical isolate of bovine respiratory syncytial virus, using molecular beacons," <i>Journal Of Virology</i> , 80(2):682-688 (2006) | | | | |
| | SANTANGELO et al., "Nanostructured probes for RNA detection in living cells," Annals Of Biomedical Engineering, 34(1):39-50 (2006) | | | | |
| | TANG et al., "Monitoring p21 mRNA expression in living cell based on molecular beacon fluorescence increasing rate," Chinese Science Bulletin, 53(3):337-361 (2008) | | | | |
| | TANG et al., "mRNA detection in living cell using phosphorothioate-modified molecular beacon" Chinese Science Bulletin, 54(9):1507-1514 (2009) | | | | |
| | TYAGI et al., "Imaging native beta-actin mRNA in motile fibroblasts," Biophysical Journal, 87(6):4153-4162 (2004) | | | | |
| | VAN CRAENENBROECK et al., "Evaluation of the tetracycline- and ecdysone-inducible systems for expression of neutrotransmitter receptors in mammalian cells," <i>European Journal Neuroscience</i> , 14(6):988-976 (2001) | | | | |
| | WANG et al., "Imaging and characterizing influenza A virus mRNA transport in living cells," Nucleic Acids Research, 36(15):4913-4928 (2008) | | | | |
| | WANG et al., "Molecular engineering of DNA: molecular beacons," Angewandte Chemie, 48(5):856-870 (2009) | | | | |
| | WU et al., "Nucleic acid beacons for long-term real-time intracellular monitoring," Analytical Chemistry, 80(8):3025-3028 (2008) | | | | |
| | YANG et al., "Monitoring nucleic acids using molecular beacons," Current Pharmaceutical Biotechnology, 6(6):445-452 (2005) | | | | |
| | ZAHN-ZABAL et al., "Development of stable cell lines for production or regulated expression using matrix attachment regions," <i>Journal of Biotechnology</i> , 87(1):29-42 (2001) | | | | |

| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |

"EXAMINER: Initial if inference considered, whether or not clation is no confirmance with MPEP 600. Draw line through clatifier in its confirmance with or considered.

In the confirmation of the confirmation confi

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a beaufit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 USC. 1.22 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of fine yea require to complete this form and-or aggestions of readouting this burden, should be sent to the Chert in the complete the first or complete the first many and or aggestions and or aggestions and or aggestions of the complete the first or and or aggestions of the complete the first or and or aggestions of the complete the first or and or aggestion of the complete the first or and or aggestion of the complete the first or and or aggestion of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or and or aggregation of the complete the first or aggregation of the complete the first or and or aggregation or aggregation or aggregation of the complete the first or aggregation of the complete the first or aggregation of the complete the co